

Amendment
Serial No. 10/027,889
PU010237
Page 2

AMENDMENTS TO THE CLAIMS

In the Claims:

1. (Currently Amended) A method of manufacturing a luminescent screen for cathode-ray tubes having deposits of phosphor powder on an interior of a faceplate comprises:

applying a film formulation over said deposits to form a lacquer film, said film formulation having at least one lacquer material and at least two non-
aqueous solvents, one of said solvents being a non-solvent for at least one lacquer material;

applying a thin layer of aluminum on said film; and

exposing said screen to a sufficiently high temperature to volatilize any organic components.

2. (Original) The method of claim 1, wherein said lacquer material contains at least one acrylic resin.

3. (Original) The method of claim 1, wherein said film formulation comprises polymethylmethacrylate (PMMA); methyl isobutyl ketone (MIBK), a solvent for PMMA; and linalyl acetate (LA), a solvent in which PMMA is not soluble.

4. (Original) The method of claim 1, wherein said film formulation is applied by electrostatic spraying.

5. (Original) The method of claim 1, wherein said film formulation is applied by spin coating.

6. (Currently Amended) The method of claim 1, wherein at least one type of microcrystals, which is selected from the group of boric acid, ammonium oxalate,

Amendment
Serial No. 10/027,889
PU010237
Page 3

or oxalic acid, is applied to said film prior to applying a layer of aluminum onto said film ~~formulation~~.

7. (Currently Amended) A method of manufacturing a luminescent screen for cathode-ray tubes having fixed phosphor elements that comprises:

electrostatically spraying a film formulation on to said fixed phosphor elements resulting in a lacquer film, wherein said formulation has at least one lacquer material and at least two non-aqueous solvents, one of said solvents being a non-solvent for at least one lacquer material;

applying a thin layer of aluminum on said film; and

exposing said screen to a sufficiently high temperature to volatilize any organic components.

8. (Original) The method of claim 7, wherein said film formulation comprises concentrations of 81.0 % wt. MIBK, 4.0 % wt. LA, and 15.0 % wt. PMMA.

9. (Original) The method of claim 7, wherein said lacquer film contains at least one acrylic resin.

10. (Original) The method of claim 7, wherein said fixed phosphor elements are stripes.

11. (Original) The method of claim 7, wherein said fixed phosphor elements are dots.

12. (Currently Amended) A method of manufacturing a luminescent screen, for a cathode-ray tube having electrophotographically printed phosphor elements on a panel, that comprises:

Amendment
Serial No. 10/027,889
PU010237
Page 4

fixing said phosphor elements by applying a suitable fixative with electrostatic spray of a solvent or solvents onto the panel, whereby a said OPC, which is under said phosphor elements, is dissolved and encapsulates individual phosphor particles resulting in fixed phosphor elements;

applying a film formulation over said fixed phosphor elements to form a lacquer film, wherein said film formulation contains methyl isobutyl ketone (MIBK), linalyl acetate (LA), and polymethylmethacrylate (PMMA);

applying a thin layer of aluminum on said film; and

exposing said screen to about 450 °C to volatilize all of the organic components.

13. (Original) The method of claim 12, wherein said film formulation comprises concentration ranges of 79 to 93 % wt. of MIBK, 2 to 6 % wt. of LA, and 5 to 15 % wt. of PMMA.

14. (Original) The method of claim 12, wherein said fixed phosphor elements are in the form of stripes.

15. (Original) The method of claim 12, wherein said fixed phosphor elements are in the form of dots.

16. (Currently Amended) ~~The A method of claim 12, further manufacturing a plurality of luminescent screens, for cathode-ray tubes having electrophotographically printed phosphor elements, that comprises measuring gloss of said thin layer aluminum before exposing the screen to about 450 °C and evaluating values of gloss such that values exceeding a threshold figure will be further processed and those not meeting said figure are scrapped;~~

fixing said phosphor elements by applying a suitable fixative with electrostatic spray of a solvent or solvents onto individual panels, whereby a

Amendment
Serial No. 10/027,889
PU010237
Page 5

OPC, which is under said phosphor elements, is dissolved and encapsulates individual phosphor particles resulting in fixed phosphor elements;

applying a film formulation over said fixed phosphor elements to form a lacquer film, wherein said film formulation contains methyl isobutyl ketone (MIBK), linalyl acetate (LA), and polymethylmethacrylate (PMMA);

applying a thin layer of aluminum on said film;

measuring gloss of said thin layer aluminum on individual panels before exposing said screens on said panels to about 450 °C;

evaluating values of gloss such that panels having said thin layer aluminum exceeding a threshold figure will be further processed and those not meeting said figure are scrapped; and

exposing said screens of those panels having said thin layer aluminum exceeding said threshold figure to about 450 °C to volatilize all of the organic components.

17. (Currently Amended) ~~The A method of claim 12, further comprises measuring gloss of said thin layer of aluminum after exposing the screen to 450 °C and evaluating values of gloss such that values exceeding a threshold figure will be further processed and those not meeting said figure are scrapped~~
manufacturing a plurality of luminescent screens, for cathode-ray tubes having electrophotographically printed phosphor elements, that comprises:

fixing said phosphor elements by applying a suitable fixative with electrostatic spray of a solvent or solvents onto individual panels, whereby a OPC, which is under said phosphor elements, is dissolved and encapsulates individual phosphor particles resulting in fixed phosphor elements;

applying a film formulation over said fixed phosphor elements to form a lacquer film, wherein said film formulation contains methyl isobutyl ketone (MIBK), linalyl acetate (LA), and polymethylmethacrylate (PMMA);

applying a thin layer of aluminum on said film;

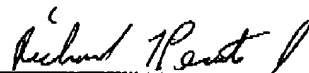
Amendment
Serial No. 10/027,889
PU010237
Page 6

exposing said screens to about 450 °C to volatilize all of the organic components;
measuring gloss of said thin layer aluminum on individual panels;
evaluating values of gloss such that panels having said thin layer aluminum exceeding a threshold figure will be further processed and those not meeting said figure are scrapped.

Amendment
Serial No. 10/027,889
PU010237
Page 7

Please charge any additional fees associated with this application to
Deposit Order Account No. 07-0832.

Respectfully submitted,



Richard LaPeruta, Jr. Agent
Reg. No. 51,252
(717) 295-6207
(717) 295-6084 (Fax)

Date: March 8, 2004

Patent Operation
Thomson Licensing Inc.
P.O. Box 5312
Princeton, NJ 08543-5312